WHAT IS CLAIMED IS:

1. A storage device comprising one or more semiconductor memories and an information processing section which reads data stored in the one or more semiconductor memories based on an operating program and instructs a predetermined process and an operation to write data,

wherein the information processing section detects a state of an area in the semiconductor memory,

substitutes the area during an idle state causing no operations in the storage device when the area is assumed to be a critical state, and

substitutes the area immediately when the area is assumed to be a limit state.

2. The storage device according to claim 1,

wherein a factor for the information processing section to determine a critical state comprises one or more of an insufficiency of a substitute free area, a successive retry error, a time over of an erasure time or a program time, an erasure count, an over current of performing a read operation or a write operation, and a less current value of externally supplied power; and

wherein a factor for the information processing section to determine a limit state comprises one or more of an insufficiency of a substitute free area, a successive retry error, an ECC uncorrectable error at retention failure, a

30

device code unreadable error, a time over of an erasure time or a program time, an erasure count, an over current of performing a read operation or a write operation, and a less current value of externally supplied power.

3. The storage device according to claim 2 capable of independently setting the factors for the information processing section to determine a critical state and setting the factors for the information processing section to determine a limit state.

4. The storage device according to claim 3,

wherein a substitution destination area substituted by the information processing section is a free area in the semiconductor memory or semiconductor memory for substitution only.

5. The storage device according to claim 4,

wherein, when the substitution destination area is a free area in the semiconductor memory, the substitution destination area is a physical area controlled by an individual peripheral circuit which controls any of a plurality of sectors provided for a memory mat.

6. The storage device according to claim 5, wherein a decode method of the device substitutes only data in a substitution origin area for data in a substitution destination area, after substitution, allows access to the substitution destination area instead of the substituted area, and allows

access to an unsubstituted area in the same manner as before the substitution.

7. The storage device according to claim 1,

wherein the information processing section notifies an outside of an emergency condition when determining that the area is in a limit state.

8. The storage device according to claim 7, wherein restricting operations such as inhibiting a write operation are performed in the limit state.

9. The storage device according to claim 8,

wherein the information processing section copies data from a substitution origin area to a substitution destination area during the area substitution and corrects a correctable error if it is contained in the data.

10. The storage device according to claim 9 comprising:

a detection circuit for detecting an area state;

a notification circuit for notifying an outside of a detection result and an area substitution state;

an area substitution circuit for performing area substitution; and

an area decode management circuit for managing permission or inhibition of access to areas.